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May 1, 2002

WRITER'S DIRECT NUMBER:

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Commissioner for Patents
Washington, D.C. 20231

Re: U.S. Divisional Utility Patent Application
Appl. No. 10/055,430 Filed: January 25, 2002
For: **Malt Beverage Having Stabilized Flavor and Methods of
Production Thereof**
Inventors: Rangel-Aldao *et al.*
Our Ref: 1390.0070006/JAG/BJD

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. 17 pages of Form PTO-1449 citing 79 documents;
3. A copy of each of the 79 cited documents; and
4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents
May 1, 2002
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency,
or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

BJD/nef
Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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AUG 12 2002
UNIT VENTURE 1600/290

In re application of:

Rangel-Aldao *et al.*

Appl. No. 10/055,430

Filed: January 25, 2002

For: **Malt Beverage Having Stabilized
Flavor and Methods of Production
Thereof**

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1390.0070006/JAG/BJD

Information Disclosure Statement

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each of these documents is provided.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following concise explanation of the relevance of the non-English language documents, Reference Numbers AM1, AN1, AO1 and AL2, cited on the Form PTO-1449:

Document AM1, European Patent Office Publication No. 0 207 039, in the name of Oleofina S.A., is in the French language. This document appears to relate to processes for preventing auto-oxidation of foodstuffs comprising adding an oxidase and its substrate to the foodstuff, and enzymatic compositions for carrying out such processes comprising an oxidase and related components. A copy of an unverified abstract of this publication in the English language (from Derwent WPI) is included herewith as document AS16.

Document AN1, Japan Patent Office Publication No. 2-46285, in the name of Riyoushiyoku Kenkyukai, is in the Japanese language. This document appears to relate to processes for deactivation of 2-oxoaldehyde by acting on 3-deoxyglucosone, using plant-derived 2-oxoaldehyde reductase. A copy of an unverified abstract of this publication in the English language (from Japan Patent Office) is included herewith as document AR17.

Document AO1, Japan Patent Office Publication No. 3-65173, in the name of Koizumi Takeo, is in the Japanese language. This document appears to relate to a process for the regeneration of old sake (rice wine) by passing the sake over a solid support material containing immobilized alcohol acetyltransferase-active yeast cells. A copy of an unverified abstract of this publication in the English language (from Japan Patent Office) is included herewith as document AS17.

Document AL2, French Patent Publication No. 2 688 228, is in the French language. This document appears to disclose a method for enhancing the earliness of a plant and/or lowering the content of nitrates stored in the plant by introducing a foreign gene coding for nitrate reductase into the genome of the plant. A copy of an unverified abstract of this publication in the English language (from Derwent WPI) is included herewith document AT16.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been cited or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Brian J. Del Buono", with a stylized flourish at the end.

Brian J. Del Buono
Attorney for Applicants
Registration No. 42,473

Date: May 1, 2002

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Page 2 of 17

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	AA2	5,010,007	04/23/1991	Prieels et al.	435	190	03/12/1990
	AB2	5,043,276	08/27/1991	Yamano et al.	435	161	04/20/1989
	AC2	5,055,401	10/08/1991	Liljeström et al.	435	172.3	04/10/1987
	AD2	5,298,264	03/29/1994	Edens et al.	426	8	12/13/1991
	AE2	5,460,836	10/24/1995	Ono et al.	426	11	08/04/1993
	AF2	5,512,472	04/30/1996	Lai et al.	435	240.1	05/11/1995
	AG2	6,207,208 B1	03/27/2001	Irwin et al.	426	330.4	07/06/1998
	AH2	6,326,184 B1	12/04/2001	Gjermansen et al.	435	254.2	09/15/1998
	AI2	6,372,269 B1	04/16/2002	Rangel-Aldao et al.	426	62	09/09/1998
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL2	FR 2 688 228	09/10/1993	France			X Yes No
	AM2	EP 0 773 285 A2	05/14/1997	Europe			Yes No
	AN2	EP 0 832 974 A2	04/01/1998	Europe			Yes No
	AO2	EP 0 924 294 A2	06/23/1999	Europe			Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	2	✓	Bravo, A., et al., "Capillary electrophoresis for studying beer aging," IBTC Technical Consortium Meeting #35, Salzburg, Austria, unpublished abstract of poster presentation (1993).
AS	2	✓	Bravo, A., et al., "Use of HPLC and CE to detect chemical indices of beer aging," IBTC Technical Consrtium Meeting #36, Caracas, Venezuela, unpublished abstract of poster presentation (1994).
AT	2	✓	Bravo, A., et al., "63. Highly sensitive chemical indices of beer aging," in: Proceedings of the 28 th EBC Congress Budapest 2001 on CD-ROM, Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1390.0070006/JAG/BJDAPPLICATION NO.
10/055,430APPLICANT
Rangel-Aldao et al.FILING DATE
January 25, 2002GROUP
To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	3,130,055	04/21/1964	Segel, et al.	99	48	10/30/1962
	AB1	3,733,205	05/15/1973	Shovers, et al.	99	48	08/07/1970
	AC1	3,770,453	11/06/1973	Dadic et al.	426	227	04/22/1971
	AD1	4,110,480	08/29/1978	Pollock et al.	426	436	07/23/1975
	AE1	4,387,162	06/07/1983	Aigle et al.	435	172	11/14/1979
	AF1	4,414,334	11/08/1983	Hitzman	435	262	08/07/1981
	AG1	4,708,875	11/24/1987	Godfredsen, et al.	426	12	03/15/1982
	AH1	4,790,993	12/13/1988	Schedl et al.	426	13	02/13/1987
	AI1	4,867,990	09/19/1989	Suwa et al.	426	8	08/16/1988
	AJ1	4,911,936	03/27/1990	Kijima et al.	426	62	03/18/1988
	AK1	4,957,749	09/18/1990	Prieels et al.	426	10	05/14/1986

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	✓ GB 5673	02/21/1891	Great Britain			Yes No
	AM1	✓ EP 0 207 039 A1	12/30/1986	Europe			Yes No X
	AN1	✓ JP 2-46285	02/15/1990	Japan			Yes No X
	AO1	✓ JP 3-65173	03/20/1991	Japan			Yes No X
	AP1	✓ EP 0 547 876 A1	06/23/1993	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	1	✓ Abramovitz, A.S., and Massey, V., "Purification of Intact Old Yellow Enzyme Using an Affinity Matrix for the Sole Chromatographic Step," <i>J. Biol. Chem.</i> 251:5321-5326, American Society of Biological Chemists, Inc. (1976).
AS	1	✓ Amore, R., et al., "Cloning and expression in <i>Saccharomyces cerevisiae</i> of the NAD(P)H-dependent xylose reductase-encoding gene (XYL1) from the xylose-assimilating yeast <i>Pichia stipitis</i> ," <i>Gene</i> 109:89-97, Elsevier Science B.V. (1991).
AT	1	✓ Baker, D.L., and Stollberg, H., "The Relation between Yeast Strain and Flavor Stability of Beer," <i>The Brewers Digest</i> 34:46-47, Siebel Publishing Co. (1959).

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FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
1390.0070006/JAG/BJDTECH. CENTER 1600/2900
APPL. NO. 10/055,430APPLICANT
Rangel-Aldao et al.FILING DATE
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

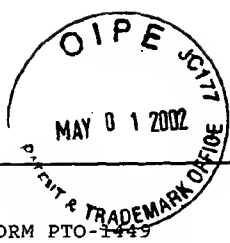
OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	3	Bravo, A., et al., "64. Identification of α -dicarbonylic compounds in aged beers: their role in beer aging process," in: <i>Proceedings of the 28th EBC Congress Budapest 2001 on CD-ROM</i> , Fachverlag Hans Carl, Nürnberg, Germany, pp. 1-10 (May 2001).
	AS	3	Bravo, A., et al., "The Blockage of Maillard Reaction Intermediates Prevents the Formation of Flavor Notes During Beer Aging," in: <i>Monograph 31: Flavor and Flavor Stability Symposium of the EBC, October 2001</i> , Fachverlag Hans Carl, Nürnberg, Germany, 9 pages (In Press).
	AT	3	Collin, S., et al., "Yeast dehydrogenase activities in relation to carbonyl compounds removal from wort and beer," <i>Proc. Cong. Eur. Brew. Conv.</i> 23:409-416, Oxford University Press (1991).

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DATE CONSIDERED

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	4	Dalglish, C.E., "Flavour Stability," Proc. Cong. Eur. Brew. Conv. (16 th Cong.), pp. 623-659, Oxford University Press (1977).
	AS	4 ✓	Debourg, A., et al., "The specific role and interaction of yeast enzymatic systems in the removal of flavour-potent wort carbonyls during fermentation," Proc. Cong. Eur. Brew. Conv. (24 th Cong.), pp.437-444, Oxford University Press (1993).
	AT	4 ✓	Debourg, A., et al., "Wort Aldehyde Reduction Potential in Free and Immobilized Yeast Systems," J. Am. Soc. Brew. Chem. 52:100-106, American Society of Brewing Chemists, Inc. (1994).

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<input checked="" type="checkbox"/>	Greenhoff, K. and Wheeler, R.E., "Analysis of Beer Carbonyls at the Part Per Billion Level by Combined Liquid Chromatography and High Pressure Liquid Chromatography," <i>J. Inst. Brew.</i> 87:35-41, Harrison & Sons (1981).
	AS	<input checked="" type="checkbox"/>	Grönqvist, A., et al., "Carbonyl compounds during beer production and in beer," <i>Proc. Cong. Eur. Brew. Conv.</i> 24:421-428, Oxford University Press (1993).
	AT	<input checked="" type="checkbox"/>	Gupta, K.G., et al., "Removal of Diacetyl from Beer by Adsorbants and Diacetyl Reductase," <i>Biotech. & Bioengin.</i> 21:649-657, John Wiley & Sons, Inc. (1979).

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FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
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	AL						Yes No
	AM						Yes No
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	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	<u>6</u> ✓	Hansen, J., and Kielland-Brandt, M.C., "Inactivation of MET10 in brewer's yeast specifically increases SO ₂ formation during beer production," <i>Nature Biotechnol.</i> 14:1587-1591, Nature Publishing Co. (November 1996).
	AS	<u>6</u> ✓	Harayama, K., et al., "Evaluation by Multivariate Analysis of Off-flavor in Headspace Volatiles Formed during Storage of Beer," <i>Agric. Biol. Chem.</i> 55:393-398, Japan Society for Bioscience, Biotechnology, and Agrochemistry (1991).
	AT	<u>6</u> ✓	Hashimoto, N., "Amino-Carbonyl Reaction During Wort Boiling in Relation to Flavor Stability of Beer," <i>MBAA Tech. Quarterly</i> 11:121-126, Master Brewers Association of the Americas (1974).

EXAMINER	DATE CONSIDERED
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AUG 12 2002

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FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	APPLICATION NO. 10/055,430
	APPLICANT Rangel-Aldao et al.	
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	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	2 ✓	Hashimoto, N., "Stale Flavor Derived from Higher Alcohols and Isohumulones in Beer," Rept. Res. Lab. Kirin Brewery Co., Ltd., 19:1-8, Kirin Brewery Co. (1976).
AS	1 ✓	Karplus, P.A., et al., "Structure-function relations for old yellow enzyme," FASEB J. 9:1518-1526, Federation of American Societies for Experimental Biology (December 1995).
AT	2 ✓	Kronl�f, J., et al., "Main fermentation with immobilized yeast," Proc. Cong. Eur. Brew. Conv. 22:355-362, Oxford University Press (1989).

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Page 8 of 17

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	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>8</u>	✓	Liang, Z.-Q., et al., "Aldose Reductase from Porcine Liver Metabolizing 3-Deoxyglucosone, a Maillard Reaction Intermediate," <i>Biosci. Biotech. Biochem.</i> 56:1074-1078, Japan Society for Bioscience, Biotechnology, and Agrochemistry (1992).
AS	<u>8</u>	✓	Lowry, O.H., et al., "Protein Measurement with the Folin Phenol Reagent," <i>J. Biol. Chem.</i> 193:265-275, Waverly Press, Inc. (1951).
AT	<u>8</u>	✓	Mathews, S., et al., "Chemical indices of food decomposition," <i>Trends Food Sci. & Technol.</i> 1:89-91, Elsevier Science (1990).

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Page 9 of 17

FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 1390.0070006/JAG/BJD	TECH. SUBJECT 1600/2900
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	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Meilgaard, M.C., "Flavor Chemistry of Beer: Part II: Flavor and Threshold of 239 Aroma Volatiles," MBAA Tech. Quarterly 12:151-168, Master Brewers Association of the Americas (1975).
	AS	2	Miranda, M., et al., "Yeast Sequencing Reports. Nucleotide Sequence and Chromosomal Localization of the Gene Encoding the Old Yellow Enzyme from Kluyveromyces lactis," Yeast 11:459-465, John Wiley & Sons, Inc. (1995).
	AT	2	Miura, R., et al., "The Heterogeneity of Brewer's Yeast Old Yellow Enzyme," J. Biochem. 99:901-906, Japanese Biochemical Society (1986).

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	APPLICANT Rangel-Aldao et al.	
	FILING DATE January 25, 2002	GROUP To Be Assigned

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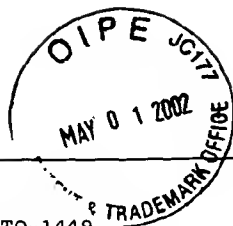
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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	AM						Yes No
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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
AR	<u>11</u>	✓	Niino, Y.S., et al., "A New Old Yellow Enzyme of <i>Saccharomyces cerevisiae</i> ," <i>J. Biol. Chem.</i> 270:1983-1991, American Society for Biochemistry and Molecular Biology, Inc. (1995).
AS	<u>11</u>	✓	Peppard, T.L., and Halsey, S.A., "Malt Flavour - Transformation of Carbonyl Compounds by Yeast During Fermentation," <i>J. Inst. Brew.</i> 87:386-390, Harrison & Sons (1981).
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	AO						Yes No
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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	AR	12 ✓	Rangel-Aldao, R., "Biotechnology for a better beer?" <i>Nature Biotechnol.</i> 14:1540-1541, Nature Publishing Co. (November 1996).
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AR	<u>14</u> /	Strating, J., and Drost, B.W., "Limits of Beer Flavour Analysis," <i>Dev. Food Sci.</i> 17:109-121, Elsevier Science B.V. (1987).
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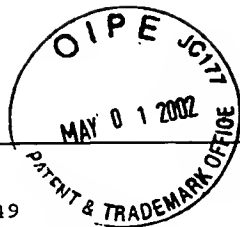
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	AS	<u>16</u> ✓	Dialog File 351 (Derwents World Patents Index), English language abstract for European Patent Office Publication No. EP 0 207 039 (Document AM1), WPI Accession No. 86-341313/198652.
	AT	<u>16</u> ✓	Dialog File 351 (Derwents World Patents Index), English language abstract for French Patent No. FR 2 688 228 (Document AL2), WPI Accession No. 93-303468/199338.

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